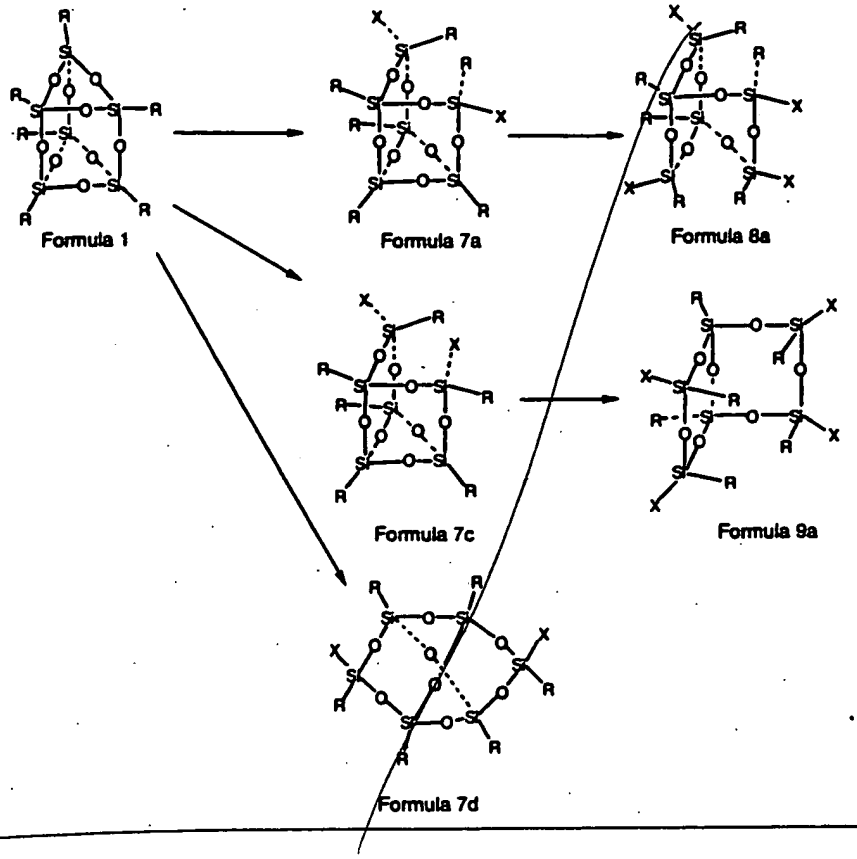
IN THE CLAIMS

Amend or rewrite the following claims per the clean copy shown below as subsequently explained by a marked-up version attached as Exhibit A.

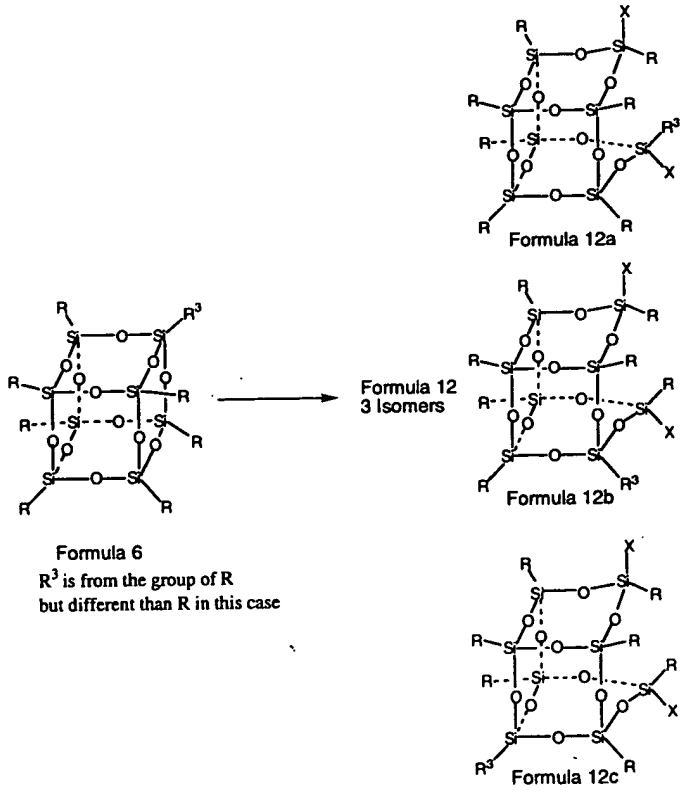
3. A method for selectively opening the rings in POSS compounds to form functionalized POSS derivatives comprising, reacting $[(RSiO_{1.5})_n]_{\Sigma\#}$ with a strong acid to form $[(RSiO_{1.5})_{n-m}(RXSiO_{1.0})_m]_{\Sigma\#}$, where n is 4-24, m is 1-10, # is m+n, R is selected from the group consisting of aliphatic, aromatic, olefinic, alkoxy , siloxy and H and X is the conjugate base of said acids, which base is F, OH, SH, NHR, NR_2, ClO_4, SO_3CH_3, SO_3CF_3, SO_3OH, SO_3Cl, SO_3CH_3, NO_3, PO_4 or Cl.

5. A method for selectively opening the rings in POSS compounds to form functionalized POSS derivatives comprising, reacting $[(RSiO_{1.5})_n]_{\Sigma\#}$, $[(RSiO_{1.5})_n(R^3SiO_{1.5})_m]_{\Sigma\#}$ or $[(RSiO_{1.5})_n(R^1R^2SiO_{1.0})_m]_{\Sigma\#}$ with a strong acid to form said derivatives, where n is 6-12, m is 1-10, where R^1, R^2 and R^3 are different substituents than R which are all selected from the group consisting of aliphatic, aromatic, olefinic, alkoxy , siloxy and H and where # is the sum of the lettered substituents in said POSS compound.

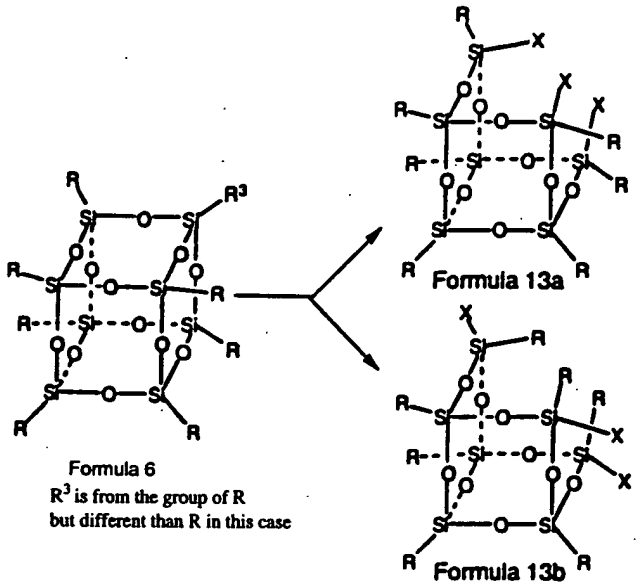
12. The method of claim 3 wherein the compound of formula 1 is reacted with said acid to form a compound of the following formulas:



16. The method of claim 5 wherein the compound of formula 6 is reacted with said acid to form the compound selected from formulas 12a, b, or c as follows :



17. The method of claim 5 wherein the compound of formula 6 is reacted with said acid to form the compound selected from the group of formulas 13 a and b as follows:



18. A polyhedral oligomeric silsesquioxane (POSS) compound of the formula, $[(RSiO_{1.5})_n(RXSiO_{1.0})_m]_{\Sigma\#}$, where n is 4-24, m is 1-10, R is aliphatic, aromatic, olefinic, alkoxy, siloxy or H and X is the conjugate base of an acid, which base is of F, OH when said compound has at least three open rings, SH, NHR or NR_2, ClO_4, SO_3OH, SO_3CF_3, SO_3Cl, SO_3CH_3, NO_3, or PO_4.

20. (Amended) A method for expanding rings in polyhedral oligomeric silsesquioxane (POSS) compounds comprising, reacting $[(RSiO_{1.5})_n (R(HO)SiO_{1.0})_m]_{\Sigma\#}$ with $Y_2SiR^1R^2$ silane reagents to obtain at least one expanded POSS ring in $[(RSiO_{1.5})_{n+m} (R^1R^2SiO_{1.0})_j]_{\Sigma\#}$, where R, R^1 and R^2 are aliphatic, aromatic, olefinic, alkoxy, siloxy or H, Y is halide or amine, n is 4 –24, m is 1-2 and j is 1-10.

Add the following claims: